# INL Value Engineering

Since its first application at the Idaho National Laboratory (INL) in 1985, Value Engineering has developed into an extremely cost effective tool for increased productivity. Its techniques provide a reliable, quality product, process, or service at the lowest possible cost.

**Systematic Process –** Value Engineering is unique in that it uses a systematic process that incorporates multidisciplinary teams, VE certified facilitators, problem solving tools and techniques and a formal job plan. The heart of VE is Function Analysis, which is the key activity that differentiates VE from other problem-solving or improvement practices.

Value Engineering follows a job plan to achieve its goals. The phases in a job plan include:

- Preparation / Planning
- Information gathering
- Function Analysis
- Creativity
- Evaluation
- Development
- Presentation / Implementation

The unique aspects of Value Engineering include:

- Utilizing facilitators trained/certified in the VE process
- Generating formal documentation of the results and team recommendations
- Engaging an interdisciplinary team of those involved or affected by the recommendations
- Performing function analysis that introduces a different perspective of the project
- Following a formal job plan.

Over 75 years of combined experience qualifies the INL Value Engineering team to provide the following services.

**Independent Analysis –** Value Engineers review your product, procedure, or service to ensure a productive, efficient, and cost effective design before implementation. Areas of past experience include management, quality assurance and control, industrial engineering, mechanical engineering, cost estimating, and project management.

**Facilitation Services –** Value Engineers provide the facilitation skills to enhance group dynamics, develop group personalities, and promote synergism – the key to a team approach. The staff has led teams in areas including Generation IV and Advanced Fuel Cycle Initiative programs, long-term monitoring of low-level waste, automated data processing equipment acquisition, job definition, craft shop design, and office building design. They can also provide the facilitation services required for program managers to lead their own in-house Value Engineering teams.

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Idaho National Laboratory

INL

# Value Engineering Assistance


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***Web Page***

*http://www.inl.gov/syseng*

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**Program Development –** Value Engineers provide assistance in program development, project management, Value Engineering orientation, administration, and customer training to teach others how to develop their own Value Engineering programs.

**Benefits of VE –** In addition to savings that yield 10% of the original life cycle costs, other benefits derived from the application of Value Engineering include:

- Better understanding of the project through improved communications
- Schedule acceleration
- Increased scope
- Early identification of missing or inaccurate cost estimates
- Early identification of risks
- Complete documentation of the decision making process.

As a contractor for the U.S. Department of Energy, our Value Engineering services are available to other government agencies through interagency contracting. Staff teams can provide a quick response to meet customers' needs.

**Recent Value Engineering Successes –** Some recent Value Engineering successes at the INL include:

- Gas Test Loop Pre-conceptual Design
- Yucca Mountain Transporter System
- Yucca Mountain Subsurface Facility Transportation System(continued from previous page)
- Spent Nuclear Fuels transfer from CPP-603 (wet storage) to CPP-666 (dry storage)
- Deactivation of CPP-601, 627, 640 Complex
- In-Situ Grouting at the Subsurface Disposal Area
- Removal of PM2A Tanks at Test Area North
- Pit-9 Stage 3 Remediation
- INL Craft Consolidation
- Test Area North Facility (TAN V)-Tanks Treatment Options.

***Interdisciplinary team members discuss innovative ideas during a Value Engineering workshop.***